

PATENT COOPERATION TREATY

from the
INTERNATIONAL SEARCHING AUTHORITY

PCT

To:

see form PCT/ISA/220

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY (PCT Rule 43bis.1)

Date of mailing
(day/month/year) see form PCT/ISA/210 (second sheet)

Applicant's or agent's file reference
see form PCT/ISA/220

FOR FURTHER ACTION
See paragraph 2 below

International application No.
PCT/GB2004/004266

International filing date (day/month/year)
08.10.2004

Priority date (day/month/year)
09.10.2003

International Patent Classification (IPC) or both national classification and IPC
B63B39/00

Applicant
SAIPEM UK LIMITED

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☒ Box No. VII Certain defects in the international application
- ☒ Box No. VIII Certain observations on the international application

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA"). However, this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of three months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

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WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

Box No. I Basis of the opinion

1. With regard to the **language**, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
 - ☐ This opinion has been established on the basis of a translation from the original language into the following language , which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).
2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
 - a. type of material:
 - ☐ a sequence listing
 - ☐ table(s) related to the sequence listing
 - b. format of material:
 - ☐ in written format
 - ☐ in computer readable form
 - c. time of filing/furnishing:
 - ☐ contained in the international application as filed.
 - ☐ filed together with the international application in computer readable form.
 - ☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/GB2004/004266

Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	1-57
	No: Claims	
Inventive step (IS)	Yes: Claims	
	No: Claims	1-57
Industrial applicability (IA)	Yes: Claims	1-57
	No: Claims	

2. Citations and explanations

see separate sheet

Box No. VII Certain defects in the international application

The following defects in the form or contents of the international application have been noted:

see separate sheet

Box No. VIII Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

see separate sheet

Point V

1. Reference is made to the following documents:

D1: NL-C-1 020 053
D2: US-A-5 095 839
D3: GB-A-2 043 571
D4: US-A- 83 420
D5: US-A-2003/154896
D6: EP-A-1 277 650

2. 2.1 Document D1, which is considered to be closest prior art, discloses a vessel (2) comprising a first stabilizer assembly (1, forward) and a second stabilizer assembly (1, aft) each stabilizer assembly comprising at least one submergible at least partially hollow body, and suspending means for suspending the or each body from the vessel (2), the first and the second stabilizer assemblies being suspended from substantially the center line of the vessel.

The subject matter of apparatus claims 1 and 28, and method claim 55 differ therefrom in that the stabilizer assemblies are suspended from opposite sides of the vessel.

Article 33 (2) PCT is complied with.

2.2 The same document discloses a submersible body in the form of an at least partially hollow tube (1), suitable for reducing motion of a waterborne vessel comprising at least one ballast tank.

The subject matter of claim 44 differs therefrom in that the tube has at least one projecting fin.

Article 33 (2) PCT is met.

3. The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claim 1-57 does not involve an inventive step in the sense of Article 33(3) PCT.

3.1 Starting from D1 it appears that the problem posed is to improve motion reduction of a floating vessel. The differing feature of claims 1, 28 and method claim 55 is the positioning of the assemblies at the sides of the vessel, not at the center line area.

This solution however is not considered to be inventive because it has been widely used for the same purpose in known systems for reducing un-desired vessel motions, see i.e. D2, where it can clearly be seen that the stabilizing elements hang from port and starboard sides.

Article 33 (3) PCT is not met.

3.2 The differing feature of independent claim 44, that is, the presence of a fin in the tubes for increasing the drag of the body in the water is not inventive either, since it is well known for the skilled man (see D5, D6) that projecting fins in underwater bodies are used for counteracting undesired balancing, rolling or pitching.

The subject matter of claim 44 is also not inventive, Art. 33(3) PCT.

4. The features of the dependent claims have either been previously disclosed alone or in combination by the various cited documents (2-4, 7-11, 13-15, 17, 18, 20, 26-27, 29-34, 36, 43, 45-48, 53-54, 56, 57) or merely constitute one of the many choices the skilled man would think of without the use of an inventive step in order to solved the problem posed (5, 6, 10, 16, 19, 21-25, 35, 37-42, 49-52).

Point VII

1. Contrary to the requirements of Rule 5.1(a)(ii) PCT, the relevant background art disclosed in the document D1 is not mentioned in the description, nor is this document identified therein.
2. Independent claim 1 is not in the two-part form in accordance with Rule 6.3(b) PCT, which in the present case would be appropriate, with those features known in combination from the prior art (document D1) being placed in the preamble (Rule 6.3(b)(i) PCT) and with the remaining features being included in the characterising part (Rule 6.3(b)(ii) PCT).

Point VIII

1. Although claims 1, 28 and 44 have been drafted as separate independent claims, they appear to relate effectively to the same subject-matter and to differ from each other only with regard to the definition of the subject-matter for which protection is sought or in respect of the terminology used for the features of that subject-matter. The aforementioned claims therefore lack conciseness and as such do not meet the requirements of Article 6 PCT.
2. The relative term "high tension loads" used in claim 9 has no well-recognised meaning and leaves the reader in doubt as to the meaning of the technical features to which it refer, thereby rendering the definition of the subject-matter of said claim unclear, Article 6 PCT.
3. The features of the claims are not provided with reference signs placed in parentheses (Rule 6.2(b) PCT).